WEST Search History

DATE: Tuesday, May 20, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB; PLUR=YES; OP=ADJ			
L10	L9 and @ad<20001108	2	L10
L9	(flow cytometry) and lipid and classify$	87	L9
DB=JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L8	(flow cytometry) and lipid and classify$	0	L8
DB=USPT; PLUR=YES; OP=ADJ			
L7	L6 and flow cytometry	47	L7
L6	classif$ same lipid	682	L6
L5	(flow cytometry) same lipid and classify$	31	L5
L4	L3 same classif$5	0	L4
L3	(flow cytometry) same lipid	121	L3
L2	L1 and lipid	0	L2
L1	(4284412|5516695|5559037|5298426|4492752).pn.	5	L1

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FILE 'HOME' ENTERED AT 11:37:11 ON 20 MAY 2003

=> index bioscience
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                                                           ENTRY    SESSION
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INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS,
       BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT,
       CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE,
       DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 11:37:23 ON 20 MAY 2003

67 FILES IN THE FILE LIST IN STNINDEX

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=> s (flow cytometry) and lipid and classif?
          3   FILE BIOSIS
          3   FILE BIOTECHNO
          1   FILE CANCERLIT
          1   FILE CAPLUS
          1   FILE CEN
  21 FILES SEARCHED...
          5   FILE EMBASE
          5   FILE ESBIOBASE
          2   FILE FEDRIP
          1   FILE IFIPAT
          2   FILE JICST-EPLUS
  42 FILES SEARCHED...
         14   FILE MEDLINE
          1   FILE PASCAL
          4   FILE SCISEARCH
          1   FILE TOXCENTER
       1273   FILE USPATFULL
  62 FILES SEARCHED...
         23   FILE USPAT2

  16 FILES HAVE ONE OR MORE ANSWERS,   67 FILES SEARCHED IN STNINDEX

L1   QUE (FLOW CYTOMETRY) AND LIPID AND CLASSIF?

=> d rank
F1         1273   USPATFULL
F2           23   USPAT2
F3           14   MEDLINE
F4            5   EMBASE
F5            5   ESBIOBASE
F6            4   SCISEARCH
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F8            3   BIOTECHNO
F9            2   FEDRIP
F10           2   JICST-EPLUS
F11           1   CANCERLIT
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F13           1   CEN
F14           1   IFIPAT
F15           1   PASCAL
F16           1   TOXCENTER


=> file f3-16
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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                          ENTRY    SESSION
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=> s l1
L2          44 L1

=> dup rem l2
DUPLICATE IS NOT AVAILABLE IN 'FEDRIP'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L2
L3           33 DUP REM L2 (11 DUPLICATES REMOVED)
                ANSWERS '1-14' FROM FILE MEDLINE
                ANSWERS '15-17' FROM FILE EMBASE
                ANSWERS '18-22' FROM FILE ESBIOBASE
                ANSWERS '23-25' FROM FILE SCISEARCH
                ANSWERS '26-27' FROM FILE BIOSIS
                ANSWERS '28-29' FROM FILE FEDRIP
                ANSWERS '30-31' FROM FILE JICST-EPLUS
                ANSWER '32' FROM FILE CEN
                ANSWER '33' FROM FILE IFIPAT
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=> d bib abs 1-27

L3 ANSWER 1 OF 33 MEDLINE DUPLICATE 2
AN 2001284335 MEDLINE
DN 20405437 PubMed ID: 10946357
TI Human CD36 deficiency is associated with elevation in low-density lipoprotein-cholesterol.
AU Yanai H; Chiba H; Morimoto M; Abe K; Fujiwara H; Fuda H; Hui S P; Takahashi Y; Akita H; Jamieson G A; Kobayashi K; Matsuno K
CS Department of Laboratory Medicine, Hokkaido University School of Medicine, Sapporo, Japan.
SO AMERICAN JOURNAL OF MEDICAL GENETICS, (2000 Aug 14) 93 (4) 299-304. Journal code: 7708900. ISSN: 0148-7299.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200105
ED Entered STN: 20010529
Last Updated on STN: 20010529
Entered Medline: 20010524
AB To find out whether CD36 plays a role in the human lipoprotein metabolism, we studied lipoprotein profiles in subjects with CD36 deficiency. Apparently healthy Japanese volunteers (n = 790) were **classified** by **flow cytometry** into three groups of normal (platelet and monocyte CD36+, n = 741, 93.8%), type-II deficiency (platelet CD36- and monocyte CD36+, n = 45, 5.7%), and type-I deficiency (platelet and monocyte CD36-, n = 4, 0.5%). At least one of reported mutations in the CD36 gene was found in all four subjects with type-I deficiency and in 23 of the 45 subjects with type II. Among 779 subjects (731 normals, 44 type II, and four type I) with serum triglyceride levels of <400 mg/dL, serum total cholesterol and low-density lipoprotein (LDL) cholesterol were significantly elevated in type-II deficiency (P = 0.0095 and 0.0382 versus normal, respectively, Scheffe's F-test), while differences were not significant in triglyceride and high-density lipoprotein-cholesterol. Similar tendency was observed in type-I deficiency, although the differences were not statistically significant because of small sample size. We conclude that CD36 deficiency elevates LDL cholesterol, indicating a contribution of CD36 to LDL metabolism.

L3 ANSWER 2 OF 33 MEDLINE DUPLICATE 3
AN 1998230480 MEDLINE
DN 98230480 PubMed ID: 9570553
TI Activation of complement by mannose-binding lectin on isogenic mutants of Neisseria meningitidis serogroup B.
AU Jack D L; Dodds A W; Anwar N; Ison C A; Law A; Frosch M; Turner M W; Klein N J
CS Immunobiology Unit, Institute of Child Health, London, United Kingdom.
SO JOURNAL OF IMMUNOLOGY, (1998 Feb 1) 160 (3) 1346-53. Journal code: 2985117R. ISSN: 0022-1767.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199805
ED Entered STN: 19980520
Last Updated on STN: 19980520
Entered Medline: 19980514
AB Mannose-binding lectin (MBL) is a serum protein that has been demonstrated to activate the classical complement pathway and to function directly as an opsonin. Although MBL deficiency is associated with a common opsonic defect and a predisposition to infection, the role of the protein in bacterial infection remains unclear. We have investigated MBL binding to Neisseria meningitidis serogroup B1940 and three isogenic mutants, and the

subsequent activation of the two major isoforms of C4 (C4A and C4B) by an associated serine protease, MASP. The mutants lacked expression of the capsular polysaccharide (siaD-), the lipo-oligosaccharide (LOS) outer core that prevented LOS sialylation (cpsD-), or both capsule and LOS outer core (cps-). Using **flow cytometry**, it was possible to detect strong MBL binding to the cps- and cpsD- mutants over a wide range of concentrations. In contrast, minimal or no MBL binding was detected on the parent organism, with binding to siaD- only at higher MBL concentrations. C4 was activated and bound by mutants that had previously bound MBL/MASP, but there was no significant difference in the amounts of C4A and C4B bound. When sialic acid residues were removed from the parent organism by neuraminidase treatment, the binding of both MBL and C4 increased significantly. Our results suggest that MBL may bind to and activate complement on these encapsulated organisms, and the major determinants of these effects are the LOS structure and sialylation.

L3 ANSWER 3 OF 33 MEDLINE DUPLICATE 6
AN 94034882 MEDLINE
DN 94034882 PubMed ID: 7693118
TI Assessment of fluorochromes for cellular structure and function studies by **flow cytometry**.
AU Petit J M; Denis-Gay M; Ratinaud M H
CS Institut de Biotechnologie, Limoges, France.
SO BIOLOGY OF THE CELL, (1993) 78 (1-2) 1-13. Ref: 210
Journal code: 8108529. ISSN: 0248-4900.
CY France
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LA English
FS Priority Journals
EM 199312
ED Entered STN: 19940117
Last Updated on STN: 19960129
Entered Medline: 19931222
AB Because **flow cytometry** permits the analysis of individual whole cells, one of the key requirements in selecting a probe is its ability to target the site of interest into cells. In addition, dyes must possess ideal properties (ie extinction coefficient, Stoke's shift) rendering them appropriate for this methodology. Other characteristics, such as fluorescence quenching and energy transfer, inherent to the staining, provide numerous applications in **flow cytometry**. The available fluorophores used in **flow cytometry** are **classified** according to their cellular incorporation and binding. Thus, probes are presented and discussed as follows: 1) dyes of cellular components (DNA, RNA, proteins, **lipids**); 2) probes of membrane potential; 3) fluorophores that are sensitive to their microenvironment (pH, calcium, etc); and 4) those used for measurement of enzymatic activities into cells.

L3 ANSWER 4 OF 33 MEDLINE DUPLICATE 7
AN 90172560 MEDLINE
DN 90172560 PubMed ID: 2308222
TI Laboratory tests on cancer--cytology.
AU Irie K; Sugihara S; Mashima Y; Yano H; Fujito Y; Koga T; Morimatsu M
CS Second Department of Pathology, Kurume University School of Medicine.
SO RINSHO BYORI. JAPANESE JOURNAL OF CLINICAL PATHOLOGY, (1990 Jan) 38 (1) 5-13.
Journal code: 2984781R. ISSN: 0047-1860.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA Japanese
FS Priority Journals
EM 199004
ED Entered STN: 19900601

Last Updated on STN: 19900601
Entered Medline: 19900410

AB A comparative study was performed on needle aspiration cytology and the histological grading of 34 cases of small liver cancers. According to the Edmondson-Steiner's **classification**, 9 of the 34 cases were Grade I, 10 cases were a mixture of Grades I and II and 15 were Grade II or a mixture of Grades II and III or Grades I, II and III. The group consisting of Grade II and mixtures of Grades II and III or Grades I, Ii and III were diagnosed by needle aspiration cytology using cytological criteria described previously, but cases consisting of Grade I and mixtures of Grades I and II were very difficult to diagnose because of the relative lack of cellular atypia, and the diagnostic accuracy in this group was low. Retrospectively, ceLlularity, cellular architecture and the nuclear-cytoplasmic ratio were the most valuable cytological findings in the cases of Edmondson-Steiner's Grade I and the mixture of Grades I and II. In addition, some cases of small liver cancers had characteristically large **lipid** vacuoles which resembled a signet ring cell. Imprint cytology of neuroblastomas is a rapid diagnostic test which is very useful for differential diagnosis of neuroblastoma from other childhood solid tumors. Recently, flow cytometric DNA analysis and the N-myc oncogene have been proposed as important factors in the estimation of the prognosis of neuroblastomas. Three of fore patients with aneuploid DNA under the age of 1.5 years at diagnosis survive, while five of eight patients with diploid DNA over the age of 1.5 years at diagnosis died during a 12 to 120 month follow-up.(ABSTRACT TRUNCATED AT 250 WORDS)

L3 ANSWER 5 OF 33 MEDLINE
AN 2003036346 MEDLINE
DN 22431370 PubMed ID: 12542694
TI Endotoxic activity and chemical structure of lipopolysaccharides from Chlamydia trachomatis serotypes E and L2 and Chlamydophila psittaci 6BC.
AU Heine Holger; Muller-Loennies Sven; Brade Lore; Lindner Buko; Brade Helmut
CS Research Center Borstel, Center for Medicine and Biosciences, Borstel, Germany.
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (2003 Feb) 270 (3) 440-50.
Journal code: 0107600. ISSN: 0014-2956.
CY Germany: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200303
ED Entered STN: 20030125
Last Updated on STN: 20030316
Entered Medline: 20030314

AB The lipopolysaccharide (LPS) of Chlamydia trachomatis serotype E was isolated from tissue culture-grown elementary bodies and analyzed structurally by mass spectrometry and 1H, 13C and 31P nuclear magnetic resonance. The LPS is composed of the same pentasaccharide bisphosphate alphaKdo-(2-8)-alphaKdo-(2-4)-alphaKdo-(2-6)-betaGlcN-4P-(1-6)-alphaGlcN-1P (Kdo is 3-deoxy-alpha-d-manno-oct-2-ulosonic acid) as reported for C. trachomatis serotype L2[Rund, S., Lindner, B., Brade, H. and Holst, O. (1999) J. Biol. Chem. 274, 16819-16824]. The glucosamine disaccharide backbone is substituted with a complex mixture of fatty acids with ester or amide linkage whereby no ester-linked hydroxy fatty acids were found. The LPS was purified carefully (with contaminations by protein or nucleic acids below 0.3%) and tested for its ability to induce proinflammatory cytokines in several readout systems in comparison to LPS from C. trachomatis serotype L2 and Chlamydophila psittaci strain 6BC as well as enterobacterial smooth and rough LPS and synthetic hexaacyl **lipid** A. The chlamydial LPS were at least 10 times less active than typical endotoxins; specificity of the activities was confirmed by inhibition with the LPS antagonist, B1233, or with monoclonal antibodies against chlamydial LPS. Like other LPS, the chlamydial LPS used toll-like receptor TLR4 for signalling, but unlike other LPS activation was strictly

CD14-dependent.

L3 ANSWER 6 OF 33 MEDLINE
AN 2002124743 MEDLINE
DN 21828378 PubMed ID: 11839539
TI Insulin-like growth factor I receptor is downregulated after alveolarization in an apoptotic fibroblast subset.
AU Srinivasan Suseela; Strange Jennifer; Awonusonu Feyisola; Bruce Margaret C
CS Department of Pediatrics, University of Kentucky Medical School, Lexington, Kentucky 40536, USA.
NC HL-31172 (NHLBI)
SO AMERICAN JOURNAL OF PHYSIOLOGY. LUNG CELLULAR AND MOLECULAR PHYSIOLOGY, (2002 Mar) 282 (3) L457-67.
Journal code: 100901229. ISSN: 1040-0605.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200203
ED Entered STN: 20020226
Last Updated on STN: 20021219
Entered Medline: 20020307
AB After alveolar formation, >20% of interstitial lung fibroblasts undergo apoptosis, a process that is of critical importance for normal lung maturation. The immature lung contains two morphologically distinct fibroblast populations, **lipid**-filled interstitial fibroblasts (LIF) and non-LIF (NLIF), which differ with respect to contractile protein content, proliferative capacity, and expression of mRNAs for fibronectin and types I and III collagen, but not tropoelastin. After alveolarization, apoptosis occurs in only one fibroblast population, the LIF. Using **flow cytometry** to analyze fibroblasts stained with a lipophilic, fluorescent dye, we identified a subset, designated LIF(-), that contained fewer **lipid** droplets. Unlike LIF that retain **lipid**, LIF(+), the LIF(-) do not undergo apoptosis after alveolarization. In LIF(+), apoptosis was correlated with downregulation of insulin-like growth factor I receptor (IGF-IR) mRNA and cell surface protein expression. Treatment with anti-IGF-IR decreased total lung fibroblast survival ($P = 0.05$) as did treatment with the phosphatidylinositol 3-kinase inhibitor LY-294002 and the ras-raf-mitogen-activated protein kinase inhibitor PD-98059 ($P < 0.002$), which block IGF-I/insulin receptor survival pathways. These observations implicate downregulation of IGF-IR expression in fibroblast apoptosis after alveolar formation.

L3 ANSWER 7 OF 33 MEDLINE
AN 2002010906 MEDLINE
DN 21262523 PubMed ID: 11369170
TI Apolipoprotein-E phenotype and basal activity of low-density lipoprotein receptor are independent of changes in plasma lipoprotein subfractions after cholesterol ingestion in Japanese subjects.
AU Homma Y; Kobayashi T; Yamaguchi H; Ozawa H; Homma K; Ishiwata K
CS Department of Internal Medicine, Tokai University School of Medicine, Isehara, Kanagawa, Japan.
SO NUTRITION, (2001 Apr) 17 (4) 310-4.
Journal code: 8802712. ISSN: 0899-9007.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200112
ED Entered STN: 20020121
Last Updated on STN: 20020121
Entered Medline: 20011212
AB We investigated whether the apolipoprotein-E (apoE) phenotype and the basal activity of low-density lipoprotein (LDL) receptor, which were

reported to be the major determinants for increase in plasma LDL levels by cholesterol ingestion, have the same role in Japanese subjects whose diet is low in fat and cholesterol. Cholesterol (750 mg/d) was added to the ordinary diet as a dried egg-yolk supplement for 4 wk to 110 subjects. Plasma levels of **lipids**, apolipoproteins, and cholesterol in lipoprotein subfractions were measured at the beginning and end of the test period. Phenotyping of apoE was determined by an isoelectric focusing-immunoblotting method, and LDL receptor activity in lymphocytes was determined by **flow cytometry**. Plasma levels of cholesterol in less-dense LDL (LDL(1)) and less-dense high-density lipoprotein (HDL(2)) were slightly but significantly increased, 3.4% and 4.1%, respectively, by cholesterol ingestion, but the increases were not statistically significant in any of E2, E3, and E4 groups. The distribution of the apoE phenotype was equivalent in all three LDL-cholesterol groups (no change, increase, and decrease by cholesterol ingestion). Plasma levels of LDL, LDL(1), and LDL(2) cholesterol were not significantly increased in the three groups of subjects with lymphocyte LDL-receptor activities (low, medium, and high). As with apoE phenotype, LDL-receptor activities were the same in all three LDL-cholesterol groups. In addition, there were no significant correlations between LDL-receptor activity and changes in plasma levels of **lipids**, apolipoproteins, and cholesterol in lipoprotein subfractions. Therefore, we concluded that cholesterol ingestion significantly increases plasma levels of less-dense LDL and HDL, but neither apoE phenotype nor basal LDL-receptor activity explain the variability in changes in plasma lipoprotein subfractions by cholesterol ingestion in Japanese subjects.

L3 ANSWER 8 OF 33 MEDLINE
AN 1999447297 MEDLINE
DN 99447297 PubMed ID: 10516228
TI Developmental shift in the relative percentages of lung fibroblast subsets: role of apoptosis postseptation.
AU Awonusonu F; Srinivasan S; Strange J; Al-Jumaily W; Bruce M C
CS Department of Pediatrics, University of Kentucky Medical School, Lexington, Kentucky 40536, USA.
SO AMERICAN JOURNAL OF PHYSIOLOGY, (1999 Oct) 277 (4 Pt 1) L848-59. Journal code: 0370511. ISSN: 0002-9513.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199911
ED Entered STN: 20000111
Last Updated on STN: 20000111
Entered Medline: 19991122
AB We have used the lipophilic, fluorescent dye Nile red and **flow cytometry** to identify and isolate two rat lung fibroblast subsets, **lipid**-containing interstitial cells (LICs) and non-LICs (NLICs) and to quantitate developmental changes in the relative percentages of these subsets. A significant decrease was observed in the percentage of LICs (from 79.0 +/- 3.8% on postnatal day 4 to 28.6 +/- 4.2% on day 30; $P < 0.0001$). To determine whether one or both subsets undergo apoptosis postseptation, fibroblasts from 16- to 18-day rats were treated with BODIPY-conjugated dUTP to label DNA strand breaks, which were then quantitated by **flow cytometry**. Apoptotic cells were judged to be predominantly LICs based on flow cytometric estimates of cell size and granularity and on light-microscopic colocalization of intracellular **lipid** and Hoechst-positive apoptotic bodies. Cell proliferation was compared in LICs and NLICs with both an in vitro [(3)H]thymidine incorporation assay and cell cycle analysis of propidium iodide-stained cells. Results of both assays indicated that on days 4-5, LICs proliferated more rapidly than NLICs. Tropoelastin and fibronectin mRNA expression, evaluated by RT-PCR, indicated that although tropoelastin mRNA levels did not differ, fibronectin mRNA levels were approximately ninefold greater in LICs. These results demonstrate the feasibility of a

flow cytometric assay for the analysis of size, granularity, and intracellular **lipid** content of neonatal rat lung fibroblast subsets. Subsets differed substantially with respect to proliferative capacity, fibronectin mRNA expression, and incidence of apoptosis postseptation. Together with the observed changes in relative percentages of fibroblast subsets with age, these data suggest that the ratio of LICs to NLICs could be a critical determinant of fibroblast function during lung development.

L3 ANSWER 9 OF 33 MEDLINE
AN 1999451079 MEDLINE
DN 99451079 PubMed ID: 10520202
TI Particle **classification** from light scattering with the scanning flow cytometer.
AU Shvalov A N; Surovtsev I V; Chernyshev A V; Soini J T; Maltsev V P
CS Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia.
SO CYTOMETRY, (1999 Nov 1) 37 (3) 215-20.
Journal code: 8102328. ISSN: 0196-4763.
QH573, C95
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199911
ED Entered STN: 20000111
Last Updated on STN: 20000111
Entered Medline: 19991119
AB BACKGROUND:The differential light-scattering pattern, an indicatrix, provides the most complete characterization of the optical properties of a particle. Particle **classification** can be performed on the basis of particle parameters retrieved from the indicatrices. This **classification** extends the ability of **flow cytometry** in particle recognition. METHODS:The scanning flow cytometer (SFC) permits an acquisition of traces of light scattering signals, i.e., native SFC traces, from single particles. The acquired native SFC traces are transformed into indicatrices. The performance of the SFC in measurements of indicatrices has been demonstrated for the following particles: lymphocytes, erythrocytes, polystyrene particles, and milk-fat particles. RESULTS:The structure and profile of the indicatrix for each particle type have been found to be unique. **Classification** of polystyrene particles has been performed on the basis of the map formed by particle refractive index and size. The polystyrene particles were **classified** using this map into different size categories ranging from 1.4-7 microm, with a size deviation of 0.07 microm. CONCLUSIONS:The method based on analysis of native SFC traces shows better performance in particle **classification** than the method based on the particle refractive index and size map. The **classification** performance of the SFC will be useful, for example, for particle sorting and particle identification, and with additional fluorescent measurements may have applications in multiparameter particle-based immunoassay.

L3 ANSWER 10 OF 33 MEDLINE
AN 97218344 MEDLINE
DN 97218344 PubMed ID: 9162757
TI Leukocyte low density lipoprotein receptor (LDL-R) does not contribute to LDL clearance in vivo: bone marrow transplantation studies in the mouse.
AU Fazio S; Hasty A H; Carter K J; Murray A B; Price J O; Linton M F
CS Department of Medicine, Vanderbilt University Medical Center, Nashville, TN, USA.
NC HL-02925 (NHLBI)
HL53989-01 (NHLBI)
SO JOURNAL OF LIPID RESEARCH, (1997 Feb) 38 (2) 391-400.
Journal code: 0376606. ISSN: 0022-2275.
CY United States

DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199705
ED Entered STN: 19970609
Last Updated on STN: 19970609
Entered Medline: 19970527
AB The targeted disruption of the low density lipoprotein (LDL) receptor gene in mice results in accumulation of plasma LDL cholesterol and in predisposition to diet-induced aortic atherosclerosis. Although the liver is the central organ for receptor mediated clearance of LDL, the in vivo role of other organs and tissues in LDL catabolism has not been directly studied. Since bone marrow-derived cells such as blood leukocytes and tissue macrophages express LDL receptors and contribute a large mass to the body, we designed bone marrow transplantation (BMT) experiments to reconstitute LDL receptor null mice [LDL-R(-/-)] with marrow obtained from LDL-R wild-type mice [LDL-R(+/+)] and evaluate the effects on parameters of plasma **lipid** metabolism. Although reconstitution of the transplanted mice with donor bone marrow cells was complete, no differences in plasma **lipid** levels and lipoprotein distribution were found between groups, irrespective of the diet used, and turnover studies using 125I-labeled LDL showed that LDL receptor expression by leukocytes and macrophages does not significantly contribute to plasma LDL clearance. The complementary experiment of transplanting LDL-R(-/-) marrow into C57BL/6 recipients [LDL-R(-/-)-->LDL(+/+)], performed to evaluate the role of leukocyte LDL-R in normocholesterolemic condition, also produced no effects on plasma **lipid** parameters. LDL binding studies using macrophages isolated from transplanted mice showed a lack of LDL-R expression. Thus, despite their large number and wide distribution, bone marrow-derived cells do not significantly influence receptor-mediated clearance of plasma LDL.

L3 ANSWER 11 OF 33 MEDLINE
AN 96152003 MEDLINE
DN 96152003 PubMed ID: 8562945
TI Detection of altered membrane phospholipid asymmetry in subpopulations of human red blood cells using fluorescently labeled annexin V.
AU Kuypers F A; Lewis R A; Hua M; Schott M A; Discher D; Ernst J D; Lubin B H
CS Children's Hospital Oakland Research Institute, CA 94609, USA.
NC DK32094 (NIDDK)
HL20985 (NHLBI)
HL55213 (NHLBI)
+
SO BLOOD, (1996 Feb 1) 87 (3) 1179-87.
Journal code: 7603509. ISSN: 0006-4971.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199603
ED Entered STN: 19960315
Last Updated on STN: 19960315
Entered Medline: 19960301
AB The phospholipids of the human red cell are distributed asymmetrically in the bilayer of the red cell membrane. In certain pathologic states, such as sickle cell anemia, phospholipid asymmetry is altered. Although several methods can be used to measure phospholipid organization, small organizational changes have been very difficult to assess. Moreover, these methods fail to identify subpopulations of cells that have lost their normal phospholipid asymmetry. Using fluorescently labeled annexin V in **flow cytometry** and fluorescent microscopy, we were able to identify and quantify red cells that had lost their phospholipid asymmetry in populations as small as 1 million cells. Moreover, loss of phospholipid organization in subpopulations as small as 0.1% of the total population could be identified, and individual cells

could be studied by fluorescent microscopy. An excellent correlation was found between fluorescence-activated cell sorter (FACS) analysis results using annexin V to detect red cells with phosphatidylserine (PS) on their surface and a PS-requiring prothrombinase assay using similar red cells. Cells that bound fluorescein isothiocyanate (FITC)-labeled annexin V could be isolated from the population using magnetic beads covered with an anti-FITC antibody. Evaluation of blood samples from patients with sickle cell anemia under oxygenated conditions demonstrated the presence of subpopulations of cells that had lost phospholipid asymmetry. While only a few red cells were labeled in normal control samples (0.21% +/- 0.12%, n = 8), significantly increased (P < .001) annexin V labeling was observed in samples from patients with sickle cell anemia (2.18% +/- 1.21%, n = 13). We conclude that loss of phospholipid asymmetry may occur in small subpopulations of red cells and that fluorescently labeled annexin V can be used to quantify and isolate these cells.

L3 ANSWER 12 OF 33 MEDLINE MF
AN 95335564 MEDLINE
DN 95335564 PubMed ID: 7611183
TI Correction of bone marrow nucleated cell counts for the presence of fat particles.
AU Bentley S A; Taylor M A; Killian D E; Schoultz S B; McLannan L; Bishop C A; Shea T C; Brecher M E
CS Department of Pathology and Laboratory Medicine, University of North Carolina, Chapel Hill 27599-7525, USA.
SO AMERICAN JOURNAL OF CLINICAL PATHOLOGY, (1995 Jul) 104 (1) 60-4. Journal code: 0370470. ISSN: 0002-9173.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199508
ED Entered STN: 19950828
Last Updated on STN: 19950828
Entered Medline: 19950817
AB Although the use of bone marrow transplantation has increased greatly in recent years, the quality control procedures used in bone marrow processing laboratories remain less than ideal. Accurate marrow total nucleated cell (TNC) counts are essential for effective monitoring of bone marrow collection and processing. Aspirated marrow is variably contaminated by fat particles, resulting in overestimation of marrow TNC by automated analyzers. A recently-marketed hematological analyzer (Cobas-Helios; Roche Diagnostic Systems, Branchburg, NJ) offers the potential to correct marrow TNC counts for fat particles using available software. The authors investigated the accuracy of corrected TNC counts on 21 marrow samples, using a visual chamber count as the reference method. The correction methods studied were software correction, using the Cobas-Helios differential system, and replacement of the sample plasma with saline. Uncorrected automated marrow TNC counts (mean, 28.4 x 10(9)/L) were significantly higher than the visual reference counts (mean, 23.1 x 10(9)/L). Neither the mean corrected automated count (24.3 x 10(9)/L) nor the mean saline replaced count (24.6 x 10(9)/L) differed significantly from the mean visual reference count. For both the corrected automated and saline replaced counts, 20 of the 21 data points (95%) fell within a 95% confidence interval computed for the reference method. The authors conclude that both the corrected automated method, using the Cobas-Helios, and the saline replacement method are acceptable alternatives to the visual chamber count.

L3 ANSWER 13 OF 33 MEDLINE
AN 95142442 MEDLINE
DN 95142442 PubMed ID: 7840438
TI [Better understanding and to use new technologies].
Pour mieux comprendre et utiliser les nouvelles technologies.
AU Anonymous

SO ANNALES DE BIOLOGIE CLINIQUE, (1994) 52 (7-8) 611-8.
Journal code: 2984690R. ISSN: 0003-3898.
CY France
DT Conference; Conference Article; (CONGRESSES)
LA French
FS Priority Journals
EM 199503
ED Entered STN: 19950314
Last Updated on STN: 19990129
Entered Medline: 19950302

L3 ANSWER 14 OF 33 MEDLINE
AN 87308668 MEDLINE
DN 87308668 PubMed ID: 3624422
TI Ultrastructure of human cumulus-oocyte complexes from healthy and atretic follicles.
AU Hyttel P; Westergaard L; Byskov A G
SO HUMAN REPRODUCTION, (1986 Apr) 1 (3) 153-7.
Journal code: 8701199. ISSN: 0268-1161.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198710
ED Entered STN: 19900305
Last Updated on STN: 19990129
Entered Medline: 19871021
AB Follicular fluids with cumulus-oocyte complexes and granulosa cells were aspirated from antral follicles in healthy women at different stages of the normal menstrual cycle. The cumulus-oocyte complexes were processed for light and electron microscopy and **classified** as pre-ovulatory, healthy non-pre-ovulatory and atretic by certain light microscopical criteria, i.e. degree of expansion, number of layers and pycnotic nuclei in the cumulus investment, size of the peri-vitelline space and oocyte nuclear morphology. Their follicles were similarly **classified** by follicular steroid measurements and/or flow cytometric DNA analyses of the aspirated granulosa cells. A high degree of correlation between these **classifications** was found. Moreover, pre-ovulatory and atretic cumulus-oocyte complexes showed particular fine morphological characteristics, some of which were different while others appeared to be identical. Similarities were increased number of **lipid** droplets in the cumulus cells, widened peri-vitelline space, peripheral displacement or breakdown of the oocyte nucleus and disconnection of the junctions between cumulus cell projections and the oolemma. In addition to the criteria used for the light microscopical **classification**, pre-ovulatory complexes were characterized by release of the content of cortical granules while atretic ones displayed cumulus cells with pseudopodia-like projections, cumulus cells in the perivitelline space and **lipid** droplets in the ooplasm.

L3 ANSWER 15 OF 33 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 1
AN 2002337391 EMBASE
TI Tetraspanin CD9 is a "Proteolipid," and its interaction with .alpha.(3) integrin in microdomain is promoted by GM3 ganglioside, leading to inhibition of laminin-5-dependent cell motility.
AU Kawakami Y.; Kawakami K.; Steelant W.F.A.; Ono M.; Baek R.C.; Handa K.; Withers D.A.; Hakomori S.
CS S. Hakomori, Div. of Biomembrane Research, Pacific Northwest Research Inst., 720 Broadway, Seattle, WA 98122-4327, United States. hakomori@u.washington.edu
SO Journal of Biological Chemistry, (13 Sep 2002) 277/37 (34349-34358).
Refs: 48
ISSN: 0021-9258 CODEN: JBCHA3
CY United States

DT Journal; Article
FS 029 Clinical Biochemistry
LA English
SL English
AB GM3 ganglioside inhibits tetraspanin CD9-facilitated cell motility in various cell lines (Ono, M., Handa, K., Sonnino, S., Withers, D. A., Nagai, H., and Hakomori, S. (2001) Biochemistry 40, 6414-6421). We now report the following: (i) CD9 has the novel feature of being soluble in chloroform/methanol, and **classifiable** as "proteolipid"; (ii) CD9 and .alpha.(3) integrin were concentrated together in the low-density glycolipid-enriched microdomain (GEM) of ldlD/CD9 cells, and the .alpha.(3) expression ratio (value for cells grown under +Gal condition divided by the value for cells grown under -Gal condition) in GEM of ldlD/CD9 cells was higher than that in control ldlD/moc cells, suggesting that CD9 recruits .alpha.(3) in GEM under +Gal condition, whereby GM3 is present. (iii) Chemical levels of .alpha.(3) and CD9 in the total extract or membrane fractions from cells grown under +Gal versus -Gal condition were nearly identical, whereas .alpha.(3) expressed at the cell surface, probed by antibody binding in **flow cytometry**, was higher under -Gal than +Gal condition. These results suggest that GM3 synthesized under +Gal condition promotes interaction of .alpha.(3) with CD9, which restricts .alpha.(3) binding to its antibody. A concept of the .alpha.(3)/CD9 interaction promoted by GM3 was further supported by (i) co-immunoprecipitation of CD9 and .alpha.(3) under +Gal but not -Gal condition, (ii) enhanced co-immunoprecipitation of CD9 and .alpha.(3) when GM3 was added exogenously to cells under -Gal condition, and (iii) the co-localization images of CD9 with .alpha.(3) and of GM3 with CD9 in fluorescence laser scanning confocal microscopy. Based on the promotion of .alpha.(3)/CD9 interaction by GM3 and the status of laminin-5 as a true ligand for .alpha.(3), the laminin-5/.alpha.(3)-dependent motility of ldlD/CD9 cells was found to be greatly enhanced under -Gal condition, but strongly inhibited under +Gal condition. Such a motility difference under +Gal versus -Gal condition was not observed for ldlD/moc cells. The inhibitory effect observed in ldlD/CD9 cells under +Gal condition was reversed upon addition of anti-.alpha.(3), antibody and is therefore based on interaction between .alpha.(3), CD9, and GM3 in GEM.

L3 ANSWER 16 OF 33 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 4
AN 1998239381 EMBASE
TI Molecular characterization and liposomal transfection of a p53-mutated cell line established from a poorly differentiated leiomyosarcoma.
AU Meye A.; Bache M.; Hinze R.; Schmidt H.; Wurl P.; Holzhausen H.-J.; Rath F.- W.; Taubert H.
CS Dr. H. Taubert, Institute of Pathology, Faculty of Medicine, University Halle-Wittenberg, Magdeburger Strasse 14, D-06097 Halle/Saale, Germany
SO International Journal of Oncology, (1998) 13/2 (241-248).
Refs: 30
ISSN: 1019-6439 CODEN: IJONES
CY Greece
DT Journal; Article
FS 016 Cancer
022 Human Genetics
029 Clinical Biochemistry
LA English
SL English
AB A human cell line LMS6-93 has been established from a leiomyosarcoma (LMS). Characteristics for ultrastructure, growth characteristics, cell cycle distribution, karyotype, protein expression detected by immunohistochemistry (IHC), p53 mutational status and liposomal transfection behaviour were studied and determined. The primary tumor was clearly positive for .alpha.-smooth muscle type actin and desmin in moderately differentiated areas and indicated a loss of myogenic differentiation in other regions and therefore was **classified** as a poorly differentiated LMS. The cell line LMS6-93 contains mainly polymorphic spindle shaped or polygonal tumor cells which possess the

characteristics of primitive mesenchymal cells, based on their morphology and positive reaction with an antibody to vimentin. IHC staining for S100, synaptophysin A, NSE, neurofilament proteins and cytokeratins were negative. Cytogenetic analysis revealed in the cell line diploid karyotypes comparatively close to several structural and numerical aberrations for chromosomes 2, 5, 6, 9, 10, 12, 14, 17, 18, 20, 22, and Y. IHC positivity was found for the tumor suppressor protein Rb and the oncogene product MDM2. In a p53 mutational analysis a 1 bp insertional mutation in exon 6 (G insertion in codon 215) was detected and confirmed in the original primary tumor. The other p53 allele appears to be wild-type as indicated in Western hybridization. Using different cationic **lipid** formulations complexed with a reporter expression vector (GFP) successful transfection into LMS6-93 cells was observed. The highest transfection rates (20-30% GFP expression in the viable cell population) were obtained with lipofectin. These results suggest that LMS6-93 functions as a good in vitro model for transfection studies on an LMS cell line carrying a heterozygous p53-frameshift mutation.

L3 ANSWER 17 OF 33 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 5
AN 94014007 EMBASE
DN 1994014007
TI Decline in fluorescent low density lipoprotein (LDL) uptake by small and large porcine luteal cells with advancing age of the corpus luteum.
AU Brannian J.D.; Kurz S.G.; Shiigi S.M.
CS USD-Dept. of Ob/Gyn, Ann Berdahl Hall, 1100 S. Euclid Ave.,Sioux Falls, SD 57117-5039, United States
SO Biology of Reproduction, (1994) 50/1 (204-209).
ISSN: 0006-3363 CODEN: BIREBV
CY United States
DT Journal; Article
FS 003 Endocrinology
021 Developmental Biology and Teratology
LA English
SL English
AB The present study was designed to test the hypothesis that the ability of small luteal cells (SLC) and/or large luteal cells (LLC) to take up low density lipoprotein (LDL) declines with advancing age of the CL. Ovaries from 100-110-kg gilts were **classified** as early (Days 4-6; n = 5), mid (Days 8-12; n = 6)-, or late (Days 15-18; n = 5) cycle on the basis of gross morphology. Multiple CL from each ovary were pooled and enzymatically dissociated. An aliquot of dispersed luteal cells was reserved for cell culture. Remaining cells were incubated (.apprx.4 x 105 cells/0.25 ml Dulbecco's Modified Eagle's Medium [DMEM] + 0.1% BSA) for 20 min at 37.degree.C with human LDL (10 .mu.g/ml) tagged with the fluorescent probe, Dil (Dil-LDL). Washed and fixed cells were then isolated by **flow cytometry** into SLC and LLC subpopulations on the basis of forward and 90.degree. light scatter. Cellular fluorescence was analyzed within each subpopulation. The percentage of fluorescent, i.e., Dil-LDL-positive (+), SLC did not differ between early (29.8 .+-. 5.9%) and mid (40.5 .+-. 6.8%)- cycle, but declined ($p < 0.01$) in late CL (7.0 .+-. 1.6%). Similarly, the percentage of Dil-LDL-(+) LLC was unchanged between early (80.5 .+-. 2.0%) and mid (78.6 .+-. 4.2%)-cycle, but diminished ($p < 0.01$) in late (40.2 .+-. 1.9%) CL. Moreover, the percentage of total cells isolated in the LLC subpopulation declined dramatically ($p < 0.01$) between mid (8.0 .+-. 0.9%)- and late (1.6 .+-. 0.2%) cycle, but the percentage of SLC did not change. Unsorted dispersed cells (4 x 104/0.2 ml) were cultured in DMEM/F-12 in the presence or absence of hLDL (50 .mu.g/ml). LDL increased ($p < 0.05$) progesterone (P) production by early and mid-luteal cell cultures but failed to enhance P secretion in late cultures. The data indicate that LDL uptake by SLC and LLC diminishes with advancing age of the CL. Reduced ability of luteal cells to bind and/or internalize LDL-associated cholesterol may contribute to declining P production in regressive CL.

L3 ANSWER 18 OF 33 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V.
AN 2001169031 ESBIOBASE
TI In vitro detection of apoptosis in human promyelocytic leukemia HL-60 cells by H-NMR
AU Lee C.-H.; Lee M.A.; Cho Y.-H.; Lim H.; Jung J.; Kim K.H.; Lim Y.
CS Y. Lim, Dept. of Applied Biology/Chemistry, Konkuk University, Seoul 143-701, South Korea.
E-mail: yoongho@konkuk.ac.kr
SO Journal of Microbiology and Biotechnology, (2001), 11/3 (539-542), 18 reference(s)
CODEN: JOMBES ISSN: 1017-7825
DT Journal; Article
CY Korea, Republic of
LA English
SL English
AB .sup.1H-NMR spectroscopy was used to detect apoptosis in HL-60 cells in vitro. The relationship between cell apoptosis and NMR data was validated by the **flow cytometry** assay. To evaluate the NMR apoptosis results, the ratio of methylene and methyl groups caused by **lipids** was used. In addition, an identical analysis was applied to HepG2 cells. Detection of apoptotic cell death by NMR spectroscopy was observed.

L3 ANSWER 19 OF 33 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V.
AN 1999282991 ESBIOBASE
TI Response of human oral epithelial cells to oxidative damage and the effect of vitamin E
AU Royack G.A.; Nguyen M.P.; Tong D.C.; Poot M.; Oda D.
CS D. Oda, Dept. Oral/Maxillofacial Surgery, School of Dentistry, University of Washington, Seattle, WA, United States.
E-mail: doda@u.washington.edu
SO Oral Oncology, (2000), 36/1 (37-41), 18 reference(s)
CODEN: EJCCER ISSN: 1368-8375
PUI S1368837599000470
DT Journal; Article
CY United Kingdom
LA English
SL English
AB Smoking and periodontal inflammation are various conditions with the potential to induce oxidative stress and thus DNA damage in the oral cavity. In cellular defense systems, vitamin E is considered the most powerful **lipid**-soluble antioxidant. To investigate whether oxygen-free radicals alter normal progression of the cell cycle and whether vitamin E prevents this damage, we exposed cultured normal human oral epithelial cells to hydrogen peroxide (H.sub.2O.sub.2) in the presence or absence of vitamin E. Two primary cell lines were analyzed for the presence of hydroxyl radical, cell cycle distribution and morphology. Each cell line received five treatments: control, ethanol only, vitamin E only, H.sub.2O.sub.2 only or vitamin E followed by H.sub.2O.sub.2. Degradation of hydroxyl radicals was detected by electron paramagnetic resonance analysis, cell cycle by **flow cytometry** and morphology by organotypic technique. Hydroxyl radicals were generated in H.sub.2O.sub.2-treated cells at an initial concentration, which decreased over a period of time. Cell cycle analysis showed that H.sub.2O.sub.2-treated cells differed from normal cells in that the percentage of cells in the G.sub.1 phase decreased markedly (34.3 vs. 61.2% in control) and the S phase increased (35.5 vs. 15.6% in control). Organotypic cultures treated with H.sub.2O.sub.2 demonstrated nuclear hyperchromatism, loss of maturation and prominent nucleoli, features consistent with premalignant epithelial transformation. In conclusion, our data suggest that H.sub.2O.sub.2 produced hydroxyl radicals and altered the cell cycle. Also, vitamin E may have the potential to reduce oxidative damage caused by hydroxyl radicals.

L3 ANSWER 20 OF 33 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V.
AN 1999252796 ESBIOBASE
TI Comparative study of the effects of polyunsaturated fatty acids and their metabolites on cell growth and tyrosine kinase activity in oesophageal carcinoma cells
AU Joubert A.M.; Panzer A.; Joubert F.; Lottering M.-L.; Bianchi P.C.; Seegers J.C.
CS J.C. Seegers, Department of Physiology, University of Pretoria, PO Box 2034, Pretoria 0001, South Africa.
E-mail: jseegers@medic.up.ac.za
SO Prostaglandins Leukotrienes and Essential Fatty Acids, (1999), 61/3 (171-182), 53 reference(s)
CODEN: PLEAEU ISSN: 0952-3278
DT Journal; Article
CY United Kingdom
LA English
SL English
AB The effects of exogenous .gamma.-linolenic acid (GLA), arachidonic acid (AA), prostaglandin E.sub.2 (PGE.sub.2) and prostaglandin A.sub.2 (PGA.sub.2) were evaluated on cell growth in two squamous oesophageal carcinoma cell lines, WHCO1 and WHCO3 and normal monkey kidney (NMK) cells. In both cancer cell lines all four compounds inhibited cell growth significantly. Indomethacin (I) alone, or in combination with either GLA or AA, caused marked inhibition of cell growth in WHCO3. Total tyrosine kinase (TK) activity was determined after exposure of all three cell types to the **lipid** compounds. Negligible differences were observed in TK activity between treated and untreated NMK cells. Small increases were noticed in WHCO1. Marked TK stimulation was observed in WHCO3. Addition of indomethacin to WHCO3 also increased TK activity above control value. Tyrosine phosphorylation status of exposed cells indicated that a band of approximately 55 kDa (.apprx.55 kDa) was primarily influenced in both WHCO3 and WHCO1. PGA.sub.2 caused a decrease in tyrosine phosphorylation of the .apprx.55 kDa protein in all three cell types. Negligible differences were observed in the tyrosine phosphorylation status of the .apprx.55 kDa in NMK cells exposed to GLA, AA and PGE.sub.2 respectively. However, tyrosine phosphorylation of a number of other proteins (21.5-97.4 kDa) was observed in NMK cells. **Flow cytometry** studies showed an increase in S phase and decrease in G.sub.1 phase in WHCO3 exposed to PGE.sub.2 and PGA.sub.2. Indomethacin alone, or in combination with GLA and AA, respectively, lead to an increase in G.sub.1 and a decrease in S phase. Induction of p53 levels was observed in WHCO3 cells exposed to GLA, AA, PGA.sub.2, indomethacin and the combination of indomethacin and GLA or AA.

L3 ANSWER 21 OF 33 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V.
AN 1998001020 ESBIOBASE
TI Induction of magnetic resonance-visible **lipid** in a transformed human breast cell line by tetraphenylphosphonium chloride
AU Roman S.K.; Jeitner T.M.; Hancock R.; Cooper W.A.; Rideout D.C.; Delikatny E.J.
CS E.J. Delikatny, Department of Cancer Medicine, Blackburn Building, University of Sydney, Sydney, NSW 2006, Australia.
E-mail: jimd@med.usyd.edu.au
SO International Journal of Cancer, (1997), 73/4 (570-579), 31 reference(s)
CODEN: IJCNAW ISSN: 0020-7136
DT Journal; Article
CY United States
LA English
SL English
AB Proton magnetic resonance spectroscopy (.sup.1H MRS) and DNA **flow cytometry** were used to monitor the effects of the cationic lipophilic phosphonIum salt and potential antineoplastic agent tetraphenylphosphonium chloride (TPP) on the transformed human breast cell line HBL-100. TPP treatment for 48 hr was cytostatic at low

concentrations and cytotoxic at higher concentrations with an IC.sub.1.sub.5.sub.0 of 55 .mu.M as measured by Trypan blue exclusion. At micromolar concentrations, TPP caused a significant increase in the methylene MR signal arising from mobile **lipid** as measured by the ratio of the **lipid** CH.sub.2 peak height to either the Ck.sub.3 peak height (internal referencing) or the peak height for p-aminobenzoic acid (PABA) as an external reference in a co-axial capillary within the sample. Over the same concentration range, TPP caused a slowing of passage through S phase as demonstrated by a significant depletion of cells in (G.sub.2/M phase with a concurrent but non-significant increase in cells in S. Time-dependent increases in MR-visible **lipid** were observed with 2 .mu.M TPP treatment, and the removal of TPP from the culture medium caused no significant reduction in mobile **lipid**. Two-dimensional .sup.1H-.sup.1H COSY spectra of TPP-treated HBL-100 cells revealed concentration-dependent increases in cross-peak volume ratios arising from **lipid** acyl chains relative to both internal (lysine, polyamines) and external (PABA) standards. Increases in choline and glycerophosphocholine cross-peak volume ratios were observed, indicating that the catabolism or rearrangement of phospholipids may be responsible for the observed MR-visible **lipid** increases.

L3 ANSWER 22 OF 33 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V.
AN 1995102657 ESBIOBASE
TI Ethnic differences in risk and prognostic factors for breast cancer
AU Weiss S.E.; Tartter P.I.; Ahmed S.; Brower S.T.; Brusco C.; Bassolt K.; Amberson J.B.; Bratton J.
CS Dr. P.I. Tartter, Mount Sinai Medical Center, Box 1259, One Gustave L. Levy Place, New York, NY 10029, United States.
SO Cancer, (1995), 76/2 (268-274)
CODEN: CANCAR ISSN: 0008-543X
DT Journal; Article
CY United States
LA English
SL English
AB Background. Poor survival among African American patients with breast cancer has been attributed to low socioeconomic status and lack of access to health care. However, Hispanics of equivalent socioeconomic status and health care access exhibit much higher survival rates, almost comparable to whites. This suggests that biologic differences play a role in differences in breast cancer survival in addition to socioeconomic and health care access factors. Methods. The authors studied clinical and molecular differences between patients with breast cancer of different ethnicity to determine biologic explanations for the observed differences in survival. Consecutive patients scheduled for breast biopsies were identified preoperatively and were interviewed. Blood was withdrawn for serum marker measurements, and tumor specimens collected at frozen section diagnosis were analyzed by **flow cytometry**, hormone receptor concentration, tumor grade, and Ki-67 nuclear antigen, HER-2/neu, and epidermal growth factor oncoprotein expression. Results. Age, age at menarche, number of lymph nodes with metastasis, estrogen and progesterone receptor levels, ploidy status, S-phase, Ki-67, HER-2/neu expression, tumor grade, epidermal growth factor receptor expression, **lipid**-associated sialic acid (LASA), and carcinoembryonic antigen level were not significantly related to ethnicity. African Americans presented at a significantly more advanced stage and with significantly larger tumors. They were significantly heavier and had a significantly higher mean Quetelet's index and a significantly higher number of pregnancies and number of live births. Whites and Hispanics were significantly older at menopause. Conclusions. The molecular indices associated with breast cancer prognosis do not differ significantly among whites, African Americans, and Hispanics, suggesting that the reported differences in survival among these groups are not due to biologic differences in breast cancer among ethnic groups.

L3 ANSWER 23 OF 33 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AN 2001:746424 SCISEARCH
GA The Genuine Article (R) Number: 471CP
TI A non-golgi alpha 1,2-fucosyltransferase that modifies Skp1 in the cytoplasm of Dictyostelium
AU van der Wel H; Morris H R; Panico M; Paxton T; North S J; Dell A; Thomson J M; West C M (Reprint)
CS Univ Florida, Coll Med, Dept Anat & Cell Biol, 1600 SW Archer Rd, Rm B1-3, Gainesville, FL 32610 USA (Reprint); Univ Florida, Coll Med, Dept Anat & Cell Biol, Gainesville, FL 32610 USA; Univ London Imperial Coll Sci Technol & Med, Dept Biochem, London SW7 2AY, England
CYA USA; England
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (7 SEP 2001) Vol. 276, No. 36, pp. 33952-33963.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA.
ISSN: 0021-9258.
DT Article; Journal
LA English
REC Reference Count: 47
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB Skp1 is a subunit of the SCF-E3 ubiquitin ligase that targets cell cycle and other regulatory factors for degradation. In Dictyostelium, Skp1 is modified by a pentasaccharide containing the type I blood group H trisaccharide at its core. To address how the third sugar, fucose alpha1,2-linked to galactose, is attached, a proteomics strategy was applied to determine the primary structure of FT85, previously shown to copurify with the GDPFuc:Skp1 alpha1,2-fucosyltransferase. Tryptic-generated peptides of FT85 were sequenced de novo using Q-TOF tandem mass spectrometry. Degenerate primers were used to amplify FT85 genomic. DNA, which was further extended by a novel linker polymerase chain reaction method to yield an intronless open reading frame of 768 amino acids. Disruption of the FT85 gene by homologous recombination resulted in viable cells, which had altered light scattering properties as revealed by **flow cytometry**. FT85 was necessary and sufficient for Skp1 fucosylation, based on biochemical analysis of FT85 mutant cells and Escherichia coli that express FT85 recombinantly. FT85 lacks sequence motifs that characterize all other known alpha1,2-fucosyltransferases and lacks the signal-anchor sequence that targets them to the secretory pathway. The C-terminal region of FT85 harbors motifs found in inverting Family 2 glycosyltransferase domains, and its expression in FT85 mutant cells restores fucosyltransferase activity toward a simple disaccharide substrate. Whereas most prokaryote and eukaryote Family 2 glycosyltransferases are membrane-bound and oriented toward the cytoplasm where they glycosylate **lipid**-linked or polysaccharide precursors prior to membrane translocation, the soluble, eukaryotic Skp1-fucosyltransferase modifies a protein that resides in the cytoplasm and nucleus.

L3 ANSWER 24 OF 33 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AN 2000:474780 SCISEARCH
GA The Genuine Article (R) Number: 327BQ
TI Biomonitoring in practice by optical fluorescence methods
AU Hutter K J (Reprint); Remor M; Muller S
CS GOETHESTR 4, D-76676 GRABEN NEUDORF, GERMANY (Reprint)
CYA GERMANY
SO MONATSSCHRIFT FUR BRAUWISSENSCHAFT, (JUN 2000) Vol. 53, No. 5-6, pp. 68-&.
Publisher: VERLAG HANS CARL, ANDERNACHER STR 33 A, D-90411 NURNBERG, GERMANY.
ISSN: 0723-1520.
DT Article; Journal
FS AGRI
LA German
REC Reference Count: 54
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Modern, efficient process control must link empirical knowledge with new, direct electronic counting and fluorescence procedures and molecular biological techniques to obtain extensive knowledge on the growth kinetics and the appropriate physiological states of the cells of the starter and pure cultures. Biomonitoring to monitor fermenting processes has been extended by a further parameter - the optical fluorescence determination of the glycogen content. The glycogen contents of yeast indicate an oscillating course in the case of normal fermentations in both laboratory and brewery fermentations. Glycogens can be incorporated during the lag phase and the beginning exponential phase. During the following intensive cell propagation phase they are metabolized and in the stationary phase are deposited again. The respective cell cycle phase and the neutral **lipid** content of the yeast are studied in additions glycogen content. The determination of the glycogen content provides, amongst other things, indication of a premature senescence of population. Cells which have decomposed their glycogen intracellularly due to detrimental environmental conditions are hardly in a position to initiate a new cell cycle.

L3 ANSWER 25 OF 33 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AN 1999:312875 SCISEARCH
GA The Genuine Article (R) Number: 187AZ
TI The relationship between nuclear magnetic resonance-visible **lipids** , **lipid** droplets, and cell proliferation in cultured C6 cells
AU Barba I; Cabanas M E; Arus C (Reprint)
CS UNIV AUTONOMA BARCELONA, DEPT BIOQUIM & BIOL MOL, EDIFICI CS, CERDANYOLA 08193, SPAIN (Reprint); UNIV AUTONOMA BARCELONA, DEPT BIOQUIM & BIOL MOL, CERDANYOLA 08193, SPAIN
CYA SPAIN
SO CANCER RESEARCH, (15 APR 1999) Vol. 59, No. 8, pp. 1861-1868.
Publisher: AMER ASSOC CANCER RESEARCH, PO BOX 11806, BIRMINGHAM, AL 35202.
ISSN: 0008-5472.
DT Article; Journal
FS LIFE; CLIN
LA English
REC Reference Count: 49
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB There Is an ongoing controversy about the subcellular origin of the fatty acyl chains that give rise to the NMR visible mobile **lipids** (MLs) resonance at similar to 1.24 ppm in the H-1 spectra of cells and solid tumors. Some groups have been supporting the hypothesis that triglycerides originating MLs are isotropically tumbling in small membrane microdomains, whereas other authors back the proposal that they are inside cytosolic or extracellular (necrotic areas) **lipid** droplets. Furthermore, MLs are frequently present in in vivo spectra recorded from human brain tumors, but the meaning of this detection is not fully clear.

We have addressed the possible contribution of intracellular droplets to the ML pattern recorded from human brain tumors in vivo by studying cultured C6 rat glioma cells as a model system for astrocytic tumors. We show here that cultured C6 cells display ML resonances in high field (9.4 T) H-1 NMR spectra recorded at 136 ms echo time when grown at saturation density conditions, but no MLs are visible for log-phase cells. Fluorescence microscopy analysis of cells stained with the lipophylic dye Nile red shows intracellular spherical yellow-gold droplets containing neutral **lipids**; cells at saturation density present **lipid** droplets of diameters about 1.6 mu m in most cells (85%), whereas they are almost absent in Log-phase cells (only 6% of the cells contain them). Furthermore, log-phase cells can be induced to display MLs and accumulate Nile red-positive droplets by culturing them for 24 h at pH 6.2. This acid pH effect can be fully reversed by 24 h of standard media incubation. **Lipid** droplet volume calculated from fluorescence microscopy preparations in an average cell is different for both culture conditions (2.2 times higher volume for saturation density than for ps-stressed cells). This difference in **lipid** droplet volume is reflected by a different ML peak height at 1.24 ppm (about 2 times higher

for saturation density than for pH-stressed cells), **Flow cytometry** analysis shows that both culture conditions result in a slowing down of the proliferation rate of the cells.

The fact that MLs are found to originate in **lipid** droplets inside cells that are growth compromised but still viable suggests that changes in the proliferative state of tumor cells, in the absence of necrosis, may be detected non invasively by in vivo NMR spectroscopy.

L3 ANSWER 26 OF 33 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2001:322157 BIOSIS
DN PREV200100322157
TI Inhibition of in vitro megakaryocytopoiesis by distinct ITP plasma subgroups.
AU Chang, M. (1); Nakagawa, P. A. (1); Schwartz, M. (1); Williams, S. A. (1); Buzby, J. S. (1); Nugent, D. J. (1)
CS (1) Children's Hospital of Orange County, Orange, CA USA
SO Blood, (November 16, 2000) Vol. 96, No. 11 Part 1, pp. 627a. print. Meeting Info.: 42nd Annual Meeting of the American Society of Hematology San Francisco, California, USA December 01-05, 2000 American Society of Hematology
. ISSN: 0006-4971.
DT Conference
LA English
SL English
AB The effects of ITP plasma on rhTPO-induced megakaryocytopoiesis have been examined using an umbilical cord blood MNC-derived liquid culture system. Platelet-poor plasma from 21 newly diagnosed, 8 chronic, and 2 chromosome 22q11 deletion-associated ITP patients (average PLT counts: 19.4+-17.7k/mul) was analyzed for the presence of Abs to the major platelet autoantigens, GPIIb/IIIa and Ib, by ELISA. The ITP plasma samples were **classified** into 4 Ab subgroups; negative for both Abs (group A, n=10), positive for both Abs (group B, n=14), positive for anti-GPIIb/IIIa alone (group C, n=1), and positive for anti-GPIb alone (group D, n=9). Production of CD41+PI+ cells from cultures containing the different plasma subgroups were then compared. The yield of CD41+PI+ cells was 94+-26% for group A (p=NS), 54+-20% for group B alone (p<0.05), 48% for group C alone, 44+-20% in group D alone (p<0.05), and 50+-20% for groups B, C, and D combined (n=24, p<0.01), compared to 100% for the control. While 60% of the samplesin group A produced at least 80% or more CD41+PI+ cells compared to control, only 1 out of 24 samples in groups B, C or D did so (p<0.01). Despite the potential for CD41+PI+ cell expansion in this culture system, only samples found in group A could produce more CD41+PI+ cells than the control (120%). The yield of CD41+ cells determined by immunohistochemistry was comparable to and correlated with the **flow cytometry** values (r=0.79, p<0.0001, n=28).
Ploidy distribution of CD41+PI+ cells was not significantly different between cultures containing control or ITP plasma. There were also no significant differences in the total number of cells between cultures containing either control or ITP plasma (control: 100%, n=15; A: 92+-13%, B+C+D: 90+-12%, n=20, p=NS), indicating that ITP plasma was unlikely to inhibit survival of other cells. To rule out possible interference with the detection of CD41+ cells by ITP plasma, washed control cells were re-incubated with medium containing 10% ITP plasma for an hour prior to flow cytometric analysis. The re-incubation with ITP plasma did not block binding of the monoclonal anti-human CD41 (without vs. with ITP plasma: 100% vs. 103+-6%, p=NS). Furthermore, reduced CD41+ cell production did not seem to be corrected by the inclusion of BSA, **lipids**, or reducing agent in the culture medium with ITP plasma. Preliminary ELISA studies also indicated that the level of TGFbeta1, a known negative regulator of megakaryocytopoiesis, was not higher in ITP than in control plasma. Taken together, these results indicate that the different subgroups of ITP patient plasma had heterogeneous effects on in vitro megakaryocytopoiesis.

L3 ANSWER 27 OF 33 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AN 2000:118695 BIOSIS
DN PREV200000118695
TI Determination of liposome size distribution by **flow cytometry**.
AU Vorauer-Uhl, Karola (1); Wagner, Andreas; Borth, Nicole; Katinger, Hermann
CS (1) Institute of Applied Microbiology, University of Agricultural Sciences, Muthgasse 18, A-1190, Vienna Austria
SO Cytometry, (Feb. 1, 2000) Vol. 39, No. 2, pp. 166-171.
ISSN: 0196-4763.
DT Article
LA English
SL English
AB Background: An essential parameter that describes the quality of liposome suspensions is the mean size, respectively the size distribution. Currently several analytical methods including laser light scattering techniques (LLST) are being employed. Methods: Here we present an alternative technique using **flow cytometry** (FCM) to characterize uni- and polydisperse suspensions. As model liposomes preparations containing dipalmitoylphosphatidylcholine (DPPC) were used. A constant number of particles (1,500/s) in the fluid stream and a representative number of 10,000 particles of each sample was measured. Fluorescence-labeled latex beads were measured identically, and their side scatter signals were calibrated and correlated to the results obtained with liposome vesicles. Results: Evaluation of the measurement and validation of the FCM results in comparison to LLST confirm the reliability of results obtained with our method. Latex beads in the range of 100-1000 nm were used for calibration to **classify** liposomes. Altough measurement characteristics and calculation in both methods are basically different, very good agreement of the results was achieved. Conclusions: Demonstration of stability, reproducibility, and reliability of results make the employment of this method acceptable for an adequate routine analysis technique.

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	56.37	58.78

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